

List of allowed claims 1-6, 21 & 24-31 is as follows:

1. An isolated protein, comprising an amino acid sequence set forth as SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:8, or a conservative substitution thereto of less than 5% of the amino acid sequence, wherein the protein regulates an enzyme involved in the production of reactive oxygen intermediates.

2. The isolated protein of claim 1, comprising a conservative substitution of less than 1% of the amino acid sequence set forth as SEQ ID NO: 4.

3. The isolated protein of claim 1, comprising a conservative substitution of less than 1% of the amino acid sequence set forth as SEQ ID NO: 2, SEQ ID NO: 6 or SEQ ID NO: 8.

4. The isolated protein of claim 1, wherein the isolated protein regulates superoxide production.

5. The isolated protein of claim 4, wherein the protein regulates a NADPH-oxidase (Nox) enzyme.

6. An isolated protein comprising an amino acid sequence set forth as SEQ ID NO:4, SEQ ID NO: 2, SEQ ID NO: 6, SEQ ID NO: 8 or a conservative substitution thereof of less than 5% of the amino acids of SEQ ID NO: 4, SEQ ID NO: 2, SEQ ID NO: 6 or SEQ ID NO: 8, wherein the conservative substitution comprises substitution of:

- g) alanine, serine, or threonine for each other;
- h) aspartic acid or glutamic acid for each other;
- i) asparagine or glutamine for each other;
- j) arginine or lysine for each other;
- k) isoleucine, leucine, methionine, or valine for each other; and,
- l) phenylalanine, tyrosine, or tryptophan for each other

wherein the protein regulates an enzyme involved in the production of reactive oxygen intermediates.

21. A composition comprising the isolated protein of claim 1 and a pharmaceutically acceptable carrier.

24. The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 4.

25. The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 6.

26. The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 8.

27. The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 2.

The following new claims are added:

28. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 2 or a conservative substitution thereto of less than 5% of the amino acids, wherein the protein regulates an enzyme involved in production of reactive oxygen intermediates.

29. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 4 or a conservative substitution thereto of less than 5% of the amino acids, wherein the protein regulates an enzyme involved in production of reactive oxygen intermediates.

30. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 6 or a conservative substitution thereto of less than 5% of the amino acids, wherein the protein regulates an enzyme involved in production of reactive oxygen intermediates.

31. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth as SEQ ID NO: 8 or a conservative substitution thereto of less than 5% of the amino acids, wherein the protein regulates an enzyme involved in production of reactive oxygen intermediates.